SEQUENCE LISTING

<110> Citovsky, Vitaly H
      Rhee, Yoon

<120> Genetic Assay for Protein Nuclear Transport

<130> 001.00301

<140> US 09/435,274
<141> 1999-11-05

<150> US 60/107,417
<151> 1998-11-06

<160> 13

<170> PatentIn Ver. 2.1

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<211> 611
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism:bacterial

<220>
<223> modified bacterial lexA

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acgcggctga agaacatctg aaggcgctgg cacgcaaagg cgttattgaa attgtttccg 180
gcgcatcacg cgggattcgt ctgttgcagg aagaggaaga agggttgcgg ctggtaggtc 240
gtgtggctgc cggtgaacca cttctggcgc aacagcatat tgaaggtcat tatcaggtcg 300
atccttcctt attcaagccg aatgctgatt tcctgctgcg cgtcagcggg atgtcgatga 360
aagatatcgg cattatggat ggtgacttgc tggcagtgca taaaactcag gatgtacgta 420
acggtcaggt cgttgtcgca cgtattgatg acgaagttac cgttaagggc ctggaaaaac 480
agggcaataa agtcgaactg ttgccagaaa atagcgagtt taaaccaatt gtcgttgacc 540
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<210> 2
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<212> PRT
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<220>
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<220>
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Gln Arg Leu Gly Phe Arg Ser Pro Asn Ala Ala Glu Glu His Leu Lys
            35                  40                  45

Ala Leu Ala Arg Lys Gly Val Ile Glu Ile Val Ser Gly Ala Ser Arg
        50                  55                  60

Gly Ile Arg Leu Leu Gln Glu Glu Glu Gly Leu Pro Leu Val Gly
65                  70                  75                  80

Arg Val Ala Ala Gly Glu Pro Leu Leu Ala Gln Gln His Ile Glu Gly
                85                  90                  95

His Tyr Gln Val Asp Pro Ser Leu Phe Lys Pro Asn Ala Asp Phe Leu
            100                 105                 110

Leu Arg Val Ser Gly Met Ser Met Lys Asp Ile Gly Ile Met Asp Gly
            115                 120                 125

Asp Leu Leu Ala Val His Lys Thr Gln Asp Val Arg Asn Gly Gln Val
        130                 135                 140

Val Val Ala Arg Ile Asp Asp Glu Val Thr Val Lys Gly Leu Glu Lys
145                 150                 155                 160

Gln Gly Asn Lys Val Glu Leu Leu Pro Glu Asn Ser Glu Phe Lys Pro
                165                 170                 175

Ile Val Val Asp Leu Arg Gln Gln Ser Phe Thr Ile Glu Gly Leu Ala
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Val Gly Val Ile Arg Asn Gly Asp Trp Leu Glu Phe
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<210> 3
<211> 7
<212> PRT
<213> Simian virus 40

<220>
<223> large T antigen NLS

<400> 3
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<210> 4
<211> 17
<212> PRT
<213> Xenopus sp.

<220>
<223> nucleoplasmin NLS

<220>
<221> VARIANT
<222> (3)..(13)
<223> Residues 3 to 13 in Xenopus laevis are Pro Ala Ala
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Lys Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Lys Lys
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Leu

<210> 5
<211> 9
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<223> Rev protein NES

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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:nuclear export
      signal

<220>
<223> mutated NES of pNEAM10

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<210> 7
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<212> PRT
<213> Artificial Sequence

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<223> Description of Artificial Sequence:nuclear export
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<223> residual NES of pNEARev(delta)3

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<210> 8
<211> 26
<212> DNA
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